

December-28-11 8:13:30 AM

**Item ID:** D4148-1

**Accept**

**\*N900040100\***

**Setup Start**

**\*NS1\***

Revision ID:

**Item Name:** Crosstube Lug Plate, Fwd

**Stop**

**\*NS2\***

**Start Date:** 28/12/2011 **Start Qty:** 10.00

**\*10\***

**Cust Item ID:**

**Required Date:** 12/01/2012      **Req'd Qty:** 10.00

**\*10\***

**Customer:**

**Reference:**

Approvals: Process Plan: M.C-J

**Date:** 11/12/28

### Tooling:

Date:

Run Start

**\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

**SPC (Y/N):**

Date:

**Stop**

**\*NR2\***

[illegible]

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

December-28-11 8:13:30 AM

Page 2

**Accept**

Setup Start \*NS1\*

Stop \*NS2\*

**Cust Item ID:**

**Customer:**

Run Start \*NR1\*

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

**Insp.  
Stamp**

0.00

0.00 8 18/01/02

## Memo

0.00

40

Identify as per dwg & Stock Location: ST/33

0.00

0.00

## Memo

0.00

⑩ Sep 12-01-03.

QC21- Final Inspection - Work Order Release

0.00

## Memo

0.00

OK 12/01/04

## Quality Control

R 12-01-2

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# Picklist Print

December-28-11 8:13:34 AM

Page 1

Work Order ID: 78048

**\*78048\***

Parent Item: D4148-1

**\*D4148-1\***

Parent Item Name: Crosstube Lug Plate, Fwd

Start Date: 28/12/2011

Required Date: 12/01/2012

Start Qty: 10.00

Required Qty: 10.00

**Comments:**

IPP Rev:A 10.06.24 new issue DD verf:EC

IPP Rev:B 10.10.29 as per revC DD verf:EC

11.03.02 AS PER DWG REV.D DD VERF:EC

IPP REV:C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304S11GA

Purchased

No

100

sf

61.9000

0.3607

3.796842

**\*M304S11GA\***

304/316 0.125 Sheet

**\*\***

B12-1-2

Location

Loc Qty

Loc Code

MAT020

61.9

119006

32.5

119048

29.4

119006

(10)

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<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 78048
<b>Description:</b> Fwd Crosstube Lug Plate		<b>Part Number:</b> D4148-1
<b>Inspection Dwg:</b> D4148	<b>Rev:</b> 12.01.04	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.129	+0.005/-0.001	.131	✓		✓ IBWZ	
Ø0.191	+0.005/-0.001	.193	2		✓	
Ø0.38	+0.006/-0.001	.379	2		✓	
Ø0.257	+0.006/-0.001	.258	2		✓	
Ø0.50	+0.008/-0.001	.500	2		✓	
0.94	+/-0.030	.941	2		✓	
4.47	+/-0.030	4.475	✓		✓	
0.750	+/-0.010	.752	2		✓	
8.47	+/-0.030	8.479	2		✓ Prow 512	
8.096	+/-0.010	8.100	2		✓	
5.43	+/-0.030	5.436	2		✓	
5.197	+/-0.010	5.198	2		✓	
4.733	+/-0.010	4.736	2		✓	
0.310	+/-0.010	.310	2		✓	
0.750	+/-0.010	.752	2		✓	
0.375	+/-0.010	.375	✓		✓	
1.84	+/-0.030	1.835	2		✓	
0.92	+/-0.030	.919	2		✓	
3.000	+/-0.010	3.000	✓		✓	
0.750	+/-0.010	.751	2		✓	
0.625	+/-0.010	.630	2		✓	
1.982	+/-0.010	1.989	2		✓	
0.991	+/-0.010	.991	2		✓	
0.77	+/-0.030	.770	✓		✓	
1.54	+/-0.030	1.543	2		✓	
2.47	+/-0.030	2.469	✓		✓	
0.82	+/-0.030	.823	2		✓	
3.57	+/-0.030	3.566	2		✓	
1.23	+/-0.030	1.227	2		✓	
0.73	+/-0.030	.73	✓		✓	
0.125	+/-0.010	.127	2		✓	

<b>Measured by:</b> IB	<b>Audited by:</b> S	<b>Preliminary Approval:</b>
<b>Date:</b> 12-1-02	<b>Date:</b> 12/01/02	<b>Date:</b>

Rev	Date	Change	Revised by	Approved
A	10.08.04	New Issue	KJ	
B	10.10.08	Dwg Rev updated	KJ	
C	10.11.05	Dimensions updated per Dwg Rev C	KJ	
D	11.03.08	Dwg Rev updated	KJ	

W/O:		WORK ORDER CHANGES					
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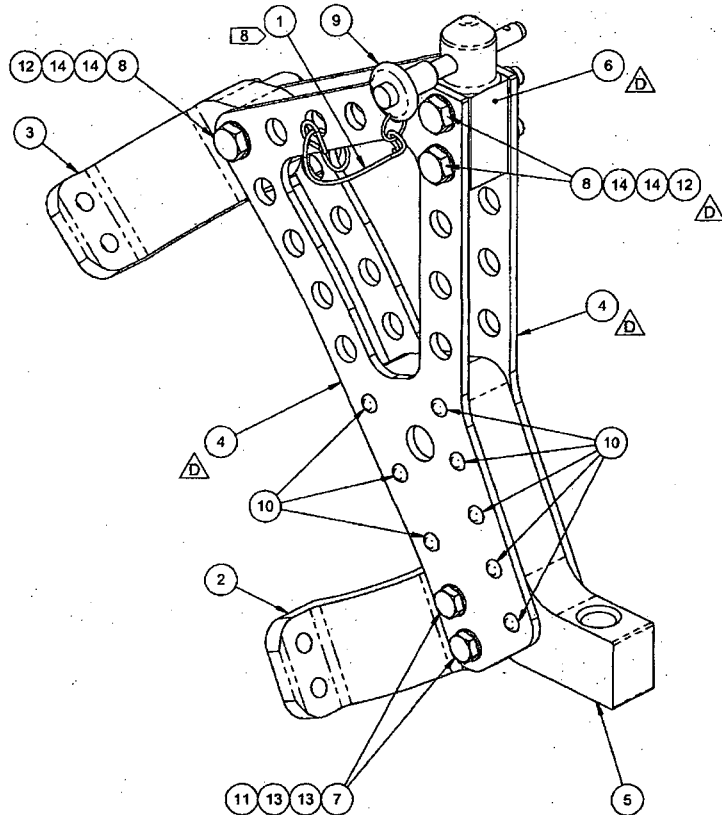
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**NOTE:** Date & initial all entries



8 7 6 5 4 3 2 1



**D4148-041 FWD X-TUBE LUG ASSY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4148-041" PER DART QSI 044 6.1
- 7) WEIGHT: 3.67 lbs
- 8) ATTACH D2690-6 TO D4148-1 BY LOOPING AROUND A LIGHTENING HOLE FIRST AND THEN SECURE TO MS17984-C413

SHOW  
RETURN  
ENGINE  
UNCONTROLLED  
SUBJECT TO  
WITH  
WORK  
NO. *78048 M.C.J.*  
*11/12/28*

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4148-041	FWD X-TUBE LUG ASSY
1	1	D2690-6	LANYARD
2	1	D3910-1	X-TUBE LUG
3	1	D4091-1	MOUNTING LUG
4	2	D4148-1	FWD X-TUBE LUG PLATE
5	1	D4148-3	STUD RECEIVER LOWER
6	1	D4148-5	EYEBOLT STUD
7	2	AN3C12A	BOLT
8	3	AN4C13A	BOLT
9	1	MS17984-C413	PIP PIN
10	8	MS20615-4M18	RIVET
11	2	MS21043C3	NUT
12	3	MS21043C4	NUT
13	4	NAS1149C0332R	WASHER
14	6	NAS1149C0432R	WASHER

**RELEASED**  
2011-02-24

D	HOLE DIA CHANGED TO 0.252" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, C4-2)	SC	11.02.22
C	REDESIGNED D4148-1/3 TO ADDRESS COMPATIBILITY ISSUES WITH D350-591 SHORT STEPS	MB	10.10.12
B	REPLACED QTY(3) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, B7-2 & B4-2); MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); Ø0.129 3 PL REPLACES Ø0.129 3 PL (ZN D8-3); Ø0.129 7 PL WAS 10 PL (ZN A7-3); Ø0.191 WAS 0.129 (ZN C8-5); REASON: SEE TR-D350-607-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC	DRAWING NO.	REV. D
CHECKED		D4148	SHEET 1 OF 5
MFG. APPR.		TITLE	SCALE
APPROVED		FWD X-TUBE LUG ASSY	NTS
DE APPR.		COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR COMMERCIAL TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	11.02.22		

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

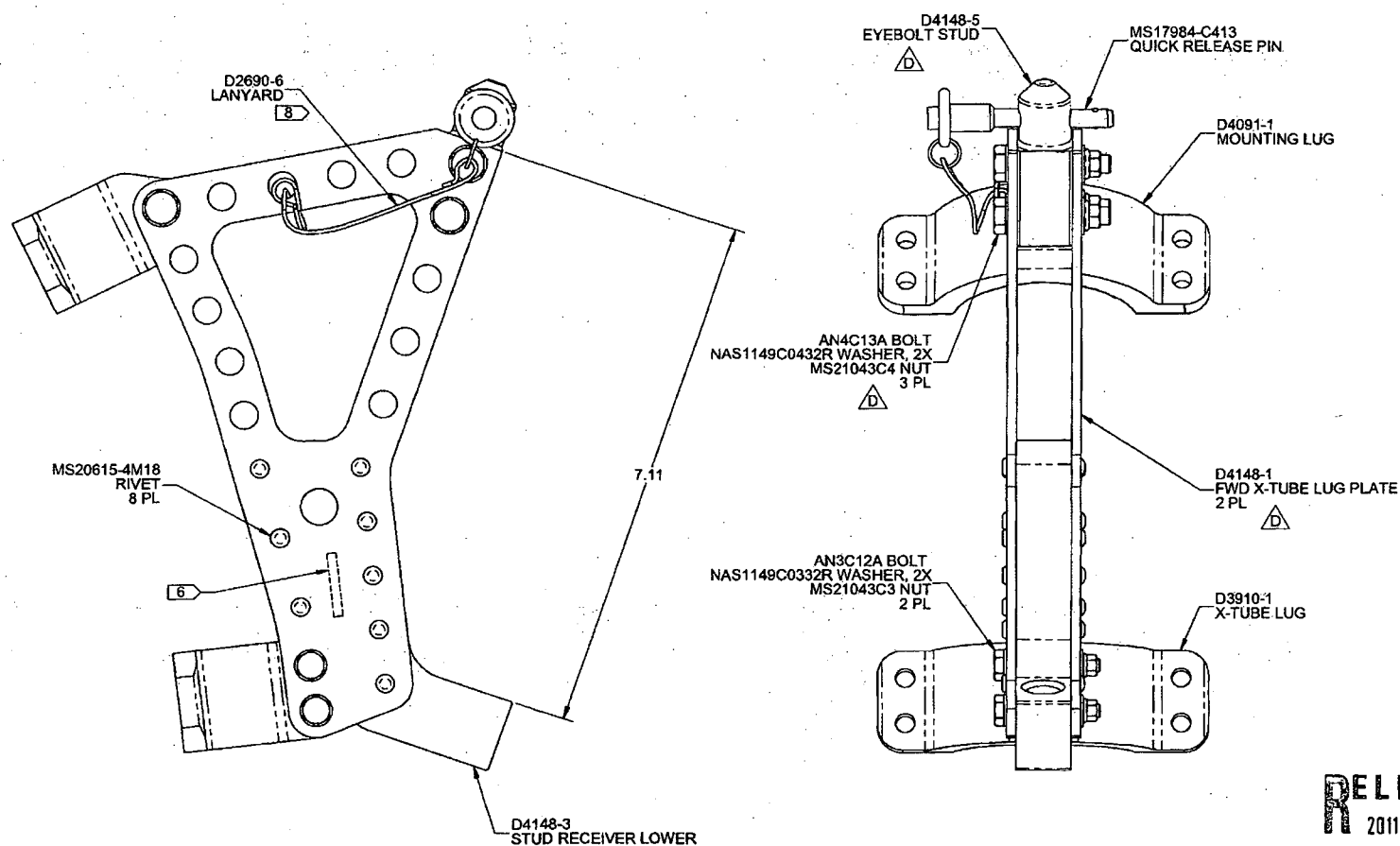
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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78048



**D4148-041 FWD X-TUBE LUG ASSY**

**RELEASED**  
2011-02-27

DESIGN	MB	<b>DART AEROSPACE LTD</b>	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		D4148	SHEET 2 OF 5
APPROVED		TITLE	SCALE
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**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

**RELEASED**  
2011-02-24

**D4148-1 FWD X-TUBE LUG PLATE**

**NOTES:**  
1) MATERIAL: 303/304/316 STAINLESS STEEL 0.125" SHEET ANNEALED 2B FINISH,  
PER MIL-S-5059 OR AMS 5513/5524 OR ASTM A240 OR ASME SA240  
REF DART SPEC M304S11GA OR M303S11GA  
2) FINISH: NONE  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: NONE  
7) WEIGHT: 0.52 lbs

**DESIGN MB**  
**DRAWN SC**  
**CHECKED**  
**MFG. APPR.**  
**APPROVED**  
**DE APPR.**  
**DATE 11.02.22**

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA  
**DRAWING NO. D4148**  
**TITLE FWD X-TUBE LUG ASSY**  
**SCALE NTS**  
**REV. D SHEET 3 OF 5**  
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RELEASE  
2011-02-24

DESIGN	MB	<b>DART AEROSPACE LTD</b>	
DRAWN	sc	HAWKESBURY, ONTARIO, CANADA	
CHECKED	5	DRAWING NO.	REV. 1
MFG. APPR.	<i>[Signature]</i>	D4148	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	<b>FWD X-TUBE LUG ASSY</b>	NTS
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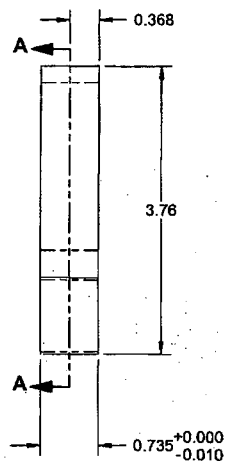
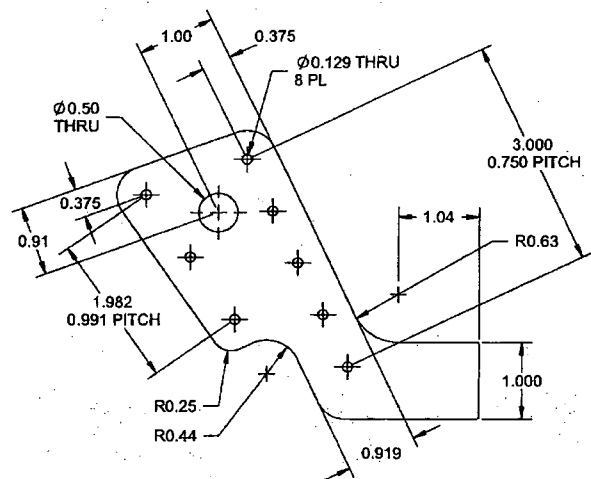
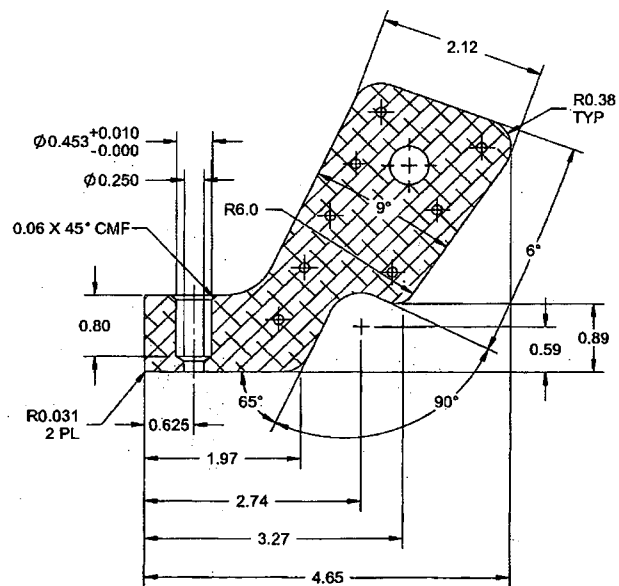
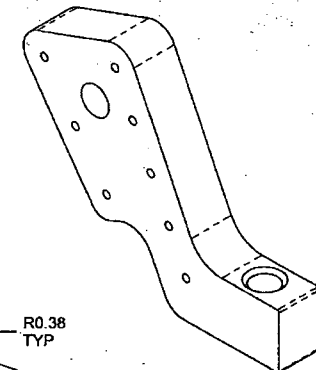
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78048

**D4148-3 STUD RECEIVER LOWER****SECTION A-A**

**RELEASED**  
2011-02-24

**NOTES:**

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A582 OR ASTM A276  
REF DART SPEC M304B OR M303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.52 lbs

DESIGN	MB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SC		
CHECKED		DRAWING NO.	REV. D
MFG. APPR.		<b>D4148</b>	SHEET 4 OF 5
APPROVED		TITLE	SCALE
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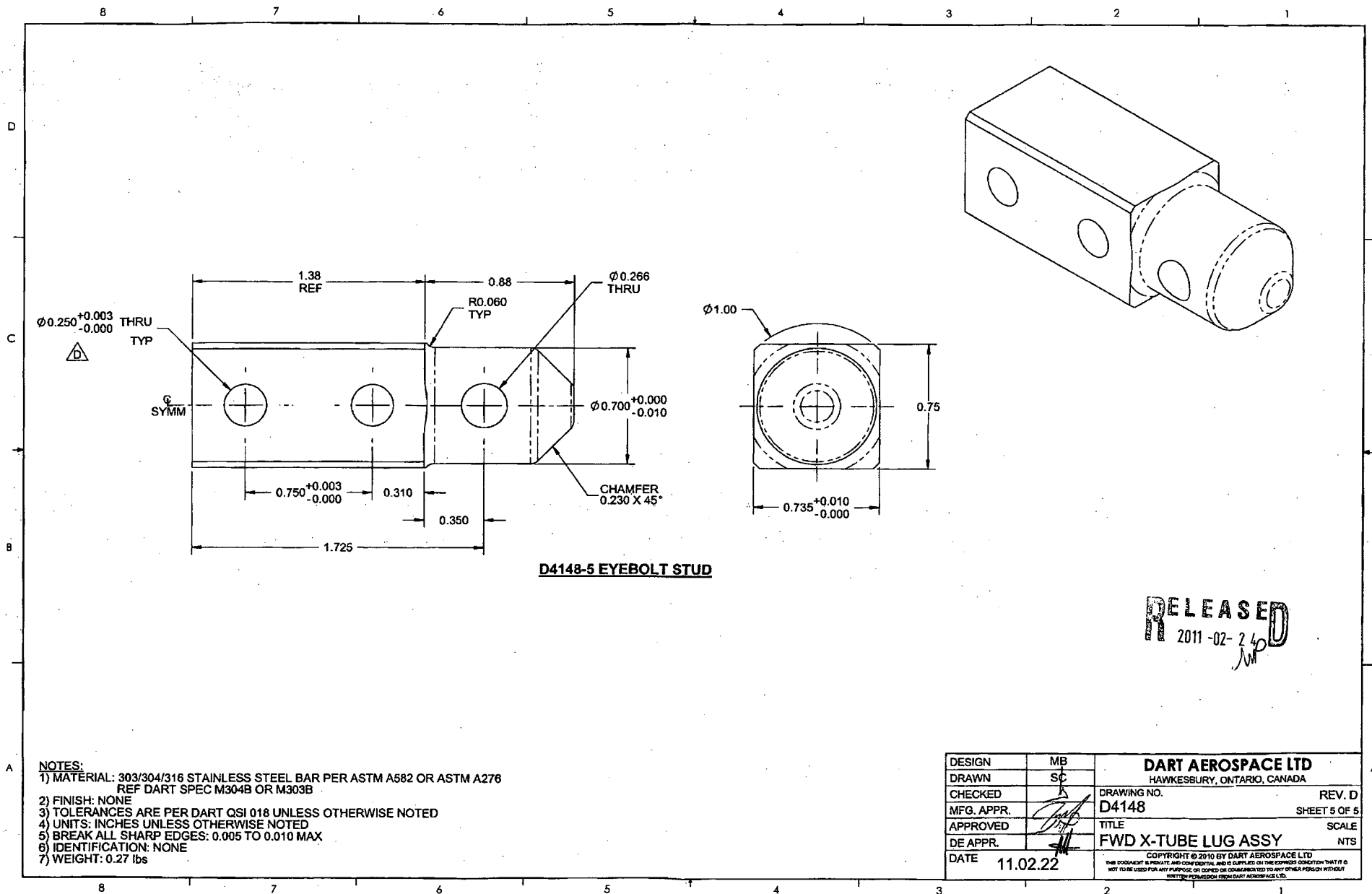
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